CLAIMS

What is claimed is:

1   1.   A method for retrieving instructions from memory utilizing a texture module
2   in a graphics pipeline, comprising:
3   (a)   sending an instruction request to memory utilizing a texture module in a
4   graphics pipeline; and
5   (b)   receiving instructions from the memory in response to the instruction request
6   utilizing the texture module in the graphics pipeline.

1   2.   The method as recited in claim 1, and further comprising sending a texture
2   request to memory utilizing the texture module in the graphics pipeline.

1   3.   The method as recited in claim 2, and further comprising receiving texture
2   information from the memory in response to the texture request utilizing the
3   texture module in the graphics pipeline.

1   4.   The method as recited in claim 1, wherein the memory includes a frame
2   buffer.

1   5.   The method as recited in claim 4, wherein the memory includes direct
2   random access memory (DRAM).

1   6.   The method as recited in claim 3, wherein the instructions are adapted for
2   controlling a texture environment module coupled to the texture module.

1   7.   The method as recited in claim 6, wherein the instructions control the manner
2   in which the texture environment module processes the texture information.

1   8.   The method as recited in claim 1, and further comprising receiving initial
2   instructions from a rasterizer module coupled to the texture module.

1   9.   The method as recited in claim 8, wherein the initial instructions control at
2   least the sending of the instruction request by the texture module.

1   10.   The method as recited in claim 3, and further comprising temporarily storing
2   the instructions and the texture information in cache.

1   11.   The method as recited in claim 10, wherein the cache is resident on the
2   texture module.

1   12.   The method as recited in claim 3, wherein each piece of texture information
2   and each of the instructions are of a similar size in the memory.

1   13.   The method as recited in claim 3, and further comprising controlling the
2   texture module utilizing a shader module coupled thereto.

1   14.   The method as recited in claim 13, wherein the shader module controls the
2   sending of the instruction request and the texture request by the texture
3   module.

1   15.   The method as recited in claim 13, wherein the shader module processes a
2   plurality of pixels with the texture information based on the instructions.

1   16.   The method as recited in claim 15, wherein the shader module is capable of
2   reusing the texture information in order to request further texture information
3   from the memory.

1   17.   The method as recited in claim 15, and further comprising ceasing the
2   processing upon the receipt of a terminate instruction.

1   18.   The method as recited in claim 1, wherein a complete instruction set is
2   received in response to the instruction request.

1   19.   The method as recited in claim 1, wherein a partial instruction set is received
2   in response to the instruction request.

1   20.   The method as recited in claim 19, and further comprising repeating (a) – (b)
2   in accordance with the instructions.

1   21.   The method as recited in claim 1, wherein (a) – (b) are carried out in
2   accordance with the instructions received in response to the instruction
3   request.

1   22.   The method as recited in claim 1, wherein the texture module is adapted for
2   operating in a plurality of different modes.

1   23.   The method as recited in claim 22, wherein the instructions are received in a
2   predetermined one or more of the different modes.

1   24.   A computer program product for retrieving instructions from memory
2   utilizing a texture module in a graphics pipeline, comprising:
3   (a)   computer code for sending an instruction request to memory utilizing a
4   texture module in a graphics pipeline; and
5   (b)   computer code for receiving instructions from the memory in response to the
6   instruction request utilizing the texture module in the graphics pipeline.

1   25.   A system for retrieving instructions from memory utilizing a texture module
2   in a graphics pipeline, comprising:
3   (a)   means for sending an instruction request to memory; and

4   (b)   means for receiving instructions from the memory in response to the

5   instruction request.

1   26.   A texture module for retrieving instructions from memory capable of

2   carrying out a method, comprising:

3   (a)   sending an instruction request to memory; and

4   (b)   receiving instructions from the memory in response to the instruction request.

1   27.   A data structure stored in a frame buffer of a graphics pipeline for allowing

2   the retrieval of instructions utilizing a texture module coupled thereto,

3   comprising an instruction object stored in the frame buffer for being retrieved

4   therefrom in response to an instruction request utilizing a texture module in a

5   graphics pipeline.

1   28.   A method for retrieving instructions from memory, comprising:

2   (a)   receiving a plurality of preliminary instructions from a rasterizer module

3   utilizing a texture module coupled thereto;

4   (b)   sending an instruction request to memory utilizing the texture module;

5   (c)   receiving additional instructions from the memory in response to the

6   instruction request utilizing the texture module;

7   (d)   caching the additional instructions on the texture module;

8   (e)   sending a texture request to memory utilizing the texture module in

9   accordance with the additional instructions;

10   (f)   receiving texture information from the memory in response to the texture

11   request utilizing the texture module;

12   (g)   caching the texture information on the texture module; and

13   (h)   repeating (b) – (g) in accordance with the additional instructions.

1   29.   A method for retrieving instructions from memory, comprising:

2   (a)   receiving a plurality of preliminary instructions from a rasterizer module

3   utilizing a shader module coupled thereto;

4   (b)   sending an instruction request to memory utilizing a texture module coupled

5   to the shader module;

6   (c)   receiving additional instructions from the memory in response to the

7   instruction request utilizing the texture module;

8   (d)   caching the additional instructions on the texture module;

9   (e)   sending a texture request to memory utilizing the texture module in

10   accordance with the additional instructions;

11   (f)   receiving texture information from the memory in response to the texture

12   request utilizing the texture module;

13   (g)   caching the texture information on the texture module;

14   (h)   processing a plurality of pixels with the texture information utilizing the

15   shader module in accordance with the additional instructions;

16   (i)   repeating (b) – (h) in accordance with the additional instructions; and

17   (j)   outputting the processed pixels upon receipt of additional instructions that

18   include a terminate instruction.